



The Empowerment Model of the Underdeveloped Regions Society Through the Innovation of Cattle-Fattening

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The underdeveloped regions is still being a prime challenge for the development of many countries likewise in Indonesia. The purpose of the study is to formulate and implement a model of empowerment of the people in underdeveloped regions based on local resource potential in an effort to improve the welfare of people in underdeveloped regions. This research target is the people in underdeveloped regions in Madura island, Indonesia, which consists of various components, namely: farmers, community leaders, NGOs, local governments, and businesses or SMEs for the development of superior products or commodities districts. The contribution of this research to the development of science is to provide a model of social engineering on people in underdeveloped regions, so that the basic model can be used to build lagging regions that have almost the same characteristics. The approach used in this study is a synergistic approach by government institutions, religious and profession with the mechanism of Participatory Rural Appraisal (PRA). Strategic efforts to empower communities can be pursued in synergy through the potential development of local models. Agropolitan based regional development or Integrated farming such as cattle-fattening that integrates multiple outputs is the main idea in this study which is being the media of the empowerment society and the strength of this research.

Keywords: Cattle-Fattening, Empowerment, Underdeveloped Region, Participatory Planning.

1. INTRODUCTION

Currently in Indonesia there are 183 districts in 27 provinces classified within the underdeveloped regions. Nine of them are located in Java. Determination of underdeveloped regions using the approach of six basic criteria are: economy, society, human resources, infrastructure, the ability of local financial (fiscal gap), accessibility, and regional characteristics. In this case as an indicator of existing problems in underdeveloped regions.

Underdeveloped regions in general have the conditions of human resources is relatively low, which is characterized by the human development index (HDI) is low. It is seen from the low average of school accomplishment, the literacy rate and life expectancy rate. Underdeveloped regions also have limited infrastructure and means of communication, transportation, water supply, irrigation, health, education, and other services so that they are difficult to conduct social and economic activities.

In the current era, one of the dangerous threats for the defence of the country is the threat of non-physical state and non-military which use some factors like ideology, politics, economics, social, cultural, and technology as a weapon.¹ Considering that the condition of underdeveloped regions being so vulnerable, it is important to be anticipated and addressed by strengthening the

factors that cause the threat. In some countries the term of this anticipating activities are like "Defence of Human Right," "Humanitarian Intervention and the Production of Civilization," and "Non Military Humanitarian Intervention."²

There are three important components of national security, namely (1) economic instruments, where the underdeveloped regions with a wealth of natural resources need to be well managed so as to improve their welfare. The impoverished societies will have a pride in being the nation Indonesia and willing to sacrifice for the nation. (2) The instrument of human resources, and (3) the technology Instruments. The Development for the society well-being can not be realized without the technology in managing natural resources, building infrastructure and information technology systems that support the defense. The Independence in the field of technology impact on impoverished communities deterrence against external threats.

The empowerment of Indonesian society in large part directed at regions classified as underdeveloped regions. Underdeveloped regions is the district that the community and the region is relatively underdeveloped than other regions on a national scale. The determination of underdeveloped regions using the approach of six basic criteria are: economy, society, human resources, infrastructure, local financial ability (fiscal gap), accessibility, and regional characteristics.³

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Table I. The international standard feed ingredients.

No	Name	Explanation
1	Roughage	The feed material that contains a lot of crude fiber (>18%) and low energy, for example; rice straw, corn stalks, sugar cane tops) to dry forage etc.
2	Green forage, pasture	For example: Grass or forage other fresh freshly cut, adang grass etc.
3	Silage	Intentionally preserved forages through fermentation process.
4	The energy source	The feed material contains a lot of energy (energy content >2250 Kcal/kg), for example: Grains such as corn, sorghum, soybeans, beans etc., then Tubers such as cassava, sweet potatoes, potatoes, etc., oil, animal fat (tallow), and a byproduct of the agriculture industry such as bran, pollard, drops etc.
5	Source of protein	Feedstuffs contain lots of protein (protein content >20%), examples: From animal sources such as fish meal, meat, blood, skim milk, etc., and from vegetable sources like beans or legumes, cake etc.
6	Source of mineral	Example: Bone meal, shell, chalk, dicaphos (dicalcium phospha the), tricaphos (tricalcium phospathe), salt etc.
7	Source of vitamin	Example: Fruits, forage etc.
8	Additive materials	Materials that need to be added in relatively small quantities of rations to supplement rations.

1.1. Participatory Planning

The concept of empowerment itself basically refers to the theory of development where there are two levels of modernist concept that are modernist adherents with their concept of state-center development and the populist adherents with their people-center development concept. Participatory planning is one of the tools that are believed capable of delivering better results in the planning process.^{4,5} This occurs because in the process of planning, participatory planning will be able to increase the activity of greater participation among the current members. In another study mentioned that participatory planning can also be used for the evaluation of interaction possibilities being more complex in terms of participation.^{6,7}

Public participation in development is a matter that is considered very important. In the study which focuses on the context of environmental governance was also identified using one of the analysis tools such as PPGIS (the public participatory geographic information system).⁸ They added that a government which is also defined as the changing “state-society” relationships, which include government agencies or private organizations (for profit and non-profit institutions) are two parallel institutions within a government.⁹ In practice, the transformation of government requires not only the authority inheritance from the government sector to the private sector, but also the involvement of the society in the decision making process.⁸

1.2. Increasing Added Value

Technically the use of community empowerment model is based on production potential that can be generated by the community itself by using appropriate technology to increase the added value of related products. The use process of appropriate technology to produce and process the product is always based on the market opportunities of the product. Community preparedness is a decisive element for the empowerment process that is based on market demand. The study of the local market and regional markets to identify the type and quantity of products used as a basis for developing the technology. Agricultural products that have been managed well and there is a chance the market is a process of community empowerment based on local potential to increase the income and welfare of the community.

1.3. Cattle Fattening

Cattle fattening is an effective tool for poverty alleviation for the rural poor.¹⁰ Cattle fattening has been applied in several countries for the development of their rural regions and until now cattle

fattening are still trusted as important business of the small farmers. The researcher find that the literatures of cattle fattening have encountered good enough development time by time,^{10–13} but the total of those items is not as many as other topics. Bangladesh, Peru, Japan, and Turkey are several countries that are identified use this effective tool. Other researchers also take almost the same tools like^{14–21} who studied about the issue of productive efficiency in meat production.

In Indonesia, we will find many underdeveloped regions which need to be assisted for the development of their region and the empowerment of their society. Therefore the objectives of this study are: to identify the real condition in thus underdeveloped region like in Madura island, Indonesia, to find the proper strategies for the cattle fattening, and to make the society aware of this condition. The difference of this research Madura island is one of the regions in Indonesia that still get little attention for some researches with the result that, this research hoped will have some good impacts for the society where this is the difference of this research compared to others.

2. RESEARCH METHODOLOGY

The implementation processes of these activities cover:

- (1) The socialization done by the research team of the community development model in underdeveloped regions which is based potential on local stakeholders,
- (2) The model implementation of the empowerment through involving all stakeholders,
- (3) Evaluation and social intervention to ensure policies sustainability and models of the empowerment to improve people welfare in the underdeveloped regions.

Synergism empowerment consists of the central government (Higher Education), local government (provincial, district, sub-district), local communities and colleges (UPN “Veteran” Java) as an actor and the driving force.

The empowerment keyword lies in improving the welfare of both in the economic, social and technical. To obtain the accuracy of the data in this study using a survey method. Data collected in the form of primary and secondary data. Primary data were obtained based on the observation of in-depth interviews and structured interviews that had been prepared previously to individuals, communities and other stakeholders (local government, local community leaders). Data were then discussed in the group discussion (FGD) is participatory, transect, observational and deep between teams of researchers and informants. This activity is expected to obtain a general overview of the condition

of society in a comprehensive manner, potential, problems and constraints as well as alternative solutions according to the needs of society itself. The procedures used in primary data collection are, researcher reality. The interpretation only records information corresponding to information obtained by investigators as far as possibly avoided. The new interpretation is done when the data analysis and focus group discussions. Secondary data can be obtained from the relevant agencies.

3. RESULT

Cattle fattening system in Indonesia known as “kereman” system. Fattening with kereman system is done by placing cows in cages continuously for several months. This system is not so different from the dry cow fattening lot, unless the level is still very simple. Feeding and drinking water is done in a simple cage during the fattening process. Given feed consisting of forage and concentrates with a ratio that depends on the availability of forage and feed concentrates. If the forage available more, with the result that the forage will be given more compared to the concentrate. Conversely, if the concentrate feed easily obtained, there are many, and are relatively inexpensive then awarding the concentrate propagated. However, there are farmers who only provide forage without giving concentrates or other feed. Of course this can be done in areas that are still potentially provide forage.

Understanding concentrates in cattle kereman system is simple, which consists of only one kind and at most two types of feed material only. For example, concentrates are only made from the form of rice bran alone, tofu dregs, or from the dregs of other agricultural industries. Those that make the concentration of a mixture of rice bran with cassava crushed and then soaked in hot water in a while. The pattern of proliferation is commonly done is by the method AI (Artificial Insemination). AI training guided by professional speakers on a group of farmers who practiced on the cows original Madura, while males can have the type of local cattle or limousine important quality and healthy.

3.1. Assessing the Cattle Weight

Weighing is the best way to determine the weight of cows. However, it is not practical to do in the veterinary market. To avoid errors in assessing cattle weight, it is worth considering to cooperate with animal traders who have experienced (broker) with remuneration (fees) for each tail purchased. It is based on many years of experience siblantik, which is capable of estimating the cattle weight without weighing them. In addition, the use of certain formulas, such as school (in Denmark), which uses a variable chest circumference and body length. Chest circle measured by the meter cloth wrapped in the body, exactly behind the forelegs. Body length is measured from the shoulders to the base of the tail. Assessment of weight bias between 5–10%.

3.2. Feed Rations

The cattle feed rations are generally deviled into two three different forms. The first is based on the origin (vegetable and animal), then based on the characteristic (forage and concentrates) and the last is based on the nutrients (sources of protein, energy and minerals).

The international standard feed ingredients are divided into eight classes, among others.

4. CONCLUSIONS

Cattle fattening is an important issue for the underdeveloped rural region. It can be one of the best tools for enhancing the economic and social value of the society. Through various types or classes of the cattle feeds like roughage, green forage, pasture, silage, cattle feed in the source of energy class, cattle feed in the source of protein class, cattle feed in the source of mineral class, cattle feed in the source of vitamin, and cattle feed in the source of additive materials. Those classes of the cattle feeds are used as the main program in Madura island, Indonesia to enhance the development of this region especially in the underdeveloped rural regions and to empower the society there.

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